

## Abstract of the Disclosure

Polyethylene glycol may be applied and bound to a broad range of substrates and materials, such as nonwoven, woven, knit, foam and film structures resulting in the manufacture of varied and useful commercial products. The invention describes various techniques and methods for saturating and bonding polyethylene glycol to a wide range of types of materials and substrates in a continuous commercial production environment.

Rather than using numerous machines and processes scattered around a production environment, or even located in multiple locations, which is inefficient, results in poor quality products, generates unacceptable scrap and waste and is not cost effective, the invention describes various methods and techniques used to permanently apply polyethylene glycol to various types of substrate and materials in an integrated production environment. Also disclosed are some of the numerous features and benefits added to substrates and materials to which polyethylene glycol has been permanently bonded.